

EOCEP Biology 1/Applied Biology 2 2015 Data Review

Areas of Concern

B-1 The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions.

- Data from the 2015 EOCEP test suggest that students may not be aware of different types of safety equipment (e.g. eyewash stations vs. eyewash rinse bottles).

B-2 The student will demonstrate an understanding of the structure and function of cells and their organelles.

- Data from the 2015 EOCEP test suggest that students understand that enzymes are catalysts that speed up chemical reactions but they do not recognize the unique qualities of enzymes as catalysts.

B-3 The student will demonstrate an understanding of the flow of energy within and between living systems.

- Data from the 2015 EOCEP test suggest that students struggle with how energy used by organisms is stored in chemical bonds.
- Data from the 2015 EOCEP test suggest teachers should emphasize the primary functions of different categories of macromolecules.

B-4 The student will demonstrate an understanding of the molecular basis of heredity.

- Data from the 2015 EOCEP test suggest that teachers should emphasize the links between the processes of transcription and translation.

B-5 The student will demonstrate an understanding of biological evolution and the diversity of life.

- Data from the 2015 EOCEP test suggest that students do not recognize the factors that influence genetic variation in populations.
- Data from the 2015 EOCEP test suggest that teachers should emphasize what fossil evidence reveals about evolutionary patterns through time.

B-6 The student will demonstrate an understanding of the interrelationships among organisms and the biotic and abiotic components of their environments.

- Data from the 2015 EOCEP test suggest that students struggle with the vocabulary associated with various biogeochemical cycles.